

*Sub A1*

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What Is Claimed Is:

1. An exercise launcher, comprising:  
a user interface that functions to display a list of classroom exercises, wherein  
each classroom exercise is associated with one or more virtual machines, and enables a  
student to select a classroom exercise and indicate that the student would like to  
perform the selected exercise;  
determining means for determining the one or more virtual machines with which  
the selected classroom exercise is associated; and  
10 a virtual machine launcher that launches the virtual machines with which the  
selected classroom exercise is associated in response to the student indicating that the  
student would like to perform the selected classroom exercise.
2. The exercise launcher of claim 1, wherein the determining means  
comprises means for accessing a classroom database that stores the names of the  
classroom exercises and associates each name with one or more virtual machine  
identifiers.
3. The exercise launcher of claim 2, wherein the determining means further  
comprises means for determining the one or more of the virtual machine identifiers  
which the name of a selected classroom exercise is associated.
4. The exercise launcher of claim 3, wherein each of the one or more virtual  
machines with which the selected classroom exercise is associated comprises a set of  
virtual machine (VM) files.  
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5. The exercise launcher of claim 4, wherein each set of VM files  
comprises, at the least, a virtual disk file.
6. The exercise launcher of claim 5, wherein each set of VM files further  
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comprises a suspended state file.

7. A classroom computer system comprising the exercise launcher of claim

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8. The classroom computer system of claim 7, further comprising:  
a virtual machine platform for supporting virtual machines; and  
one or more virtual machines.

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9. The classroom computer system of claim 7, further comprising a  
classroom database that stores the name of the selected classroom exercise and  
associates the name of the selected classroom exercises with one or more virtual  
machine identifiers.

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10. The classroom computer system of claim 9, wherein the determining  
means comprises means for accessing the classroom database and means for  
determining the one or more of the virtual machine identifiers which the name of the  
selected classroom exercise is associated.

11. The classroom computer system of claim 7, wherein each of the one or  
more virtual machines comprises a set of virtual machine (VM) files.

12. The classroom computer system of claim 11, wherein each set of VM  
files comprises a virtual disk file.

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13. The classroom computer system of claim 12, wherein each set of VM  
files further comprises a suspended state file.

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14. A system for configuring a classroom computer, comprising:  
means for determining the name of a course that is available to be installed onto

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the classroom computer, wherein the course is associated with one or more classroom exercises and each classroom exercise is associated with one or more virtual machines, wherein each virtual machine (VM) is associated with a set of VM files;

means for displaying the name of the course to a user of the system;

means for enabling the user to select the course and to indicate that the user wishes to install the course on the classroom computer;

means for receiving an indication that the user wishes to install the course on the classroom computer;

means for determining the names of the one or more classroom exercises;

10 means for storing the course name and the names of the one or more classroom exercises in a database that is accessible to the classroom computer, wherein the course name is associated with the classroom exercise names so that by knowing the course name one can retrieve from the database the names of the one or more classroom exercises;

means for determining a VM that is associated with one of the one or more classroom exercises; and

means for storing on a storage device the set of VM files belonging to said determined VM, wherein the storage device is accessible to the classroom computer.

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15. The system of claim 14, further comprising means for storing a VM identifier in the database, wherein said VM identifier identifies said determined VM.

16. The system of claim 15, wherein the name of the classroom exercise with which said determined VM is associated is associated with said VM identifier stored in said database so that by knowing said name of the classroom exercise one can retrieve from the database said VM identifier.

17. The system of claim 16, wherein said VM identifier can be used to locate said set of VM files stored on the storage device.

18. The system of claim 17, wherein said set of VM files consists of one or  
more files.
19. The system of claim 18, wherein said set of VM files comprises a virtual  
disk file.
20. The system of claim 19, wherein said set of VM files further comprises a  
suspended state file.
21. A computer implemented method for enabling a student to perform an  
exercise using a single computer, comprising:  
displaying a list of exercises, wherein each exercise is associated with one or  
more virtual machines;  
receiving an indication that the student would like to perform a selected one of  
the listed exercises;  
determining the one or more virtual machines with which the selected exercise is  
associated; and  
launching on the single computer the virtual machines with which the selected  
classroom exercise is associated in response to the student indicating that the student  
would like to perform the selected classroom exercise.
22. The method of claim 21, wherein the act of determining the one or more  
virtual machines with which the selected exercise is associated comprises accessing a  
classroom database that stores the names of the classroom exercises and associates each  
name with one or more virtual machine identifiers.
23. The method of claim 22, wherein the act of determining the one or more  
virtual machines with which the selected exercise is associated further comprises  
determining the one or more of the virtual machine identifiers which the name of a  
selected classroom exercise is associated.

24. The method of claim 23, wherein each of the one or more virtual machines with which the selected classroom exercise is associated comprises a set of virtual machine (VM) files.

25. The method of claim 24, wherein each set of VM files comprises, at the least, a virtual disk file.

26. The method of claim 25, wherein each set of VM files further comprises a suspended state file.

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27. A computer implemented method for configuring a classroom computer, comprising:

determining the name of a course that is available to be installed onto the classroom computer, wherein the course is associated with one or more classroom exercises and each classroom exercise is associated with one or more virtual machines, wherein each virtual machine (VM) is associated with a set of VM files;

displaying the name of the course to a user of the computer;

enabling the user to select the course and to indicate that the user wishes to install the course on the classroom computer;

receiving an indication that the user wishes to install the course on the classroom computer;

determining the names of the one or more classroom exercises;

25 storing the course name and the names of the one or more classroom exercises in a database that is accessible to the classroom computer, wherein the course name is associated with the classroom exercise names so that by knowing the course name one can retrieve from the database the names of the one or more classroom exercises;

determining a VM that is associated with one of the one or more classroom exercises; and

30 storing on a storage device the set of VM files belonging to said determined

VM, wherein the storage device is accessible to the classroom computer.

28. The method of claim 27, further comprising storing a VM identifier in the database, wherein said VM identifier identifies said determined VM.

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29. The method of claim 28, further comprising associating the name of the classroom exercise that is associated with said determined VM with said VM identifier stored in said database so that by knowing said name of the classroom exercise one can retrieve from the database said VM identifier.

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30. The method of claim 29, wherein said VM identifier can be used to locate said set of VM files stored on the storage device.

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31. The method of claim 30, wherein said set of VM files consists of one or more files.

32. The method of claim 31, wherein said set of VM files comprises a virtual disk file.

33. The method of claim 32, wherein said set of VM files further comprises a suspended state file.

34. A computer program product for enabling a student to perform an exercise using a single computer, the computer program product being embodied in a computer readable medium and comprising computer instructions for:

displaying a list of exercises, wherein each exercise is associated with one or more virtual machines;

receiving an indication that the student would like to perform a selected one of the listed exercises;

determining the one or more virtual machines with which the selected exercise is

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associated; and

5 launching on the single computer the virtual machines with which the selected classroom exercise is associated in response to the student indicating that the student would like to perform the selected classroom exercise.

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35. The computer program product of claim 34, wherein the computer instructions for determining the one or more virtual machines with which the selected exercise is associated comprises computer instructions for accessing a classroom database that stores the names of the classroom exercises and associates each name with one or more virtual machine identifiers.

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36. The computer program product of claim 35, wherein the computer instructions for determining the one or more virtual machines with which the selected exercise is associated further comprises computer instructions for determining the one or more of the virtual machine identifiers which the name of a selected classroom exercise is associated.

37. The computer program product of claim 36, wherein each of the one or more virtual machines with which the selected classroom exercise is associated comprises a set of virtual machine (VM) files.

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38. The computer program product of claim 37, wherein each set of VM files comprises, at the least, a virtual disk file.

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39. The computer program product of claim 38, wherein each set of VM files further comprises a suspended state file.

40. A computer program product for configuring a classroom computer, the computer program product being embodied in a computer readable medium and comprising computer instructions for:

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- determining the name of a course that is available to be installed onto the classroom computer, wherein the course is associated with one or more classroom exercises and each classroom exercise is associated with one or more virtual machines, wherein each virtual machine (VM) is associated with a set of VM files;
- 5 displaying the name of the course to a user of the computer;
- enabling the user to select the course and to indicate that the user wishes to install the course on the classroom computer;
- receiving an indication that the user wishes to install the course on the classroom computer;
- 10 determining the names of the one or more classroom exercises;
- storing the course name and the names of the one or more classroom exercises in a database that is accessible to the classroom computer, wherein the course name is associated with the classroom exercise names so that by knowing the course name one can retrieve from the database the names of the one or more classroom exercises;
- determining a VM that is associated with one of the one or more classroom exercises; and
- storing on a storage device the set of VM files belonging to said determined VM, wherein the storage device is accessible to the classroom computer.
41. The computer program product of claim 40, further comprising computer instructions for storing a VM identifier in the database, wherein said VM identifier identifies said determined VM.
- 25 42. The computer program product of claim 41, further comprising computer instructions for associating the name of the classroom exercise that is associated with said determined VM with said VM identifier stored in said database so that by knowing said name of the classroom exercise one can retrieve from the database said VM identifier.
- 30 43. The computer program product of claim 42, wherein said VM identifier

can be used to locate said set of VM files stored on the storage device.

44. The computer program product of claim 43, wherein said set of VM files consists of one or more files.

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45. The computer program product of claim 44, wherein said set of VM files comprises a virtual disk file.

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46. The computer program product of claim 45, wherein said set of VM files further comprises a suspended state file

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47. A computer signal embodied in a carrier wave readable by a computing system and encoding a computer program of instructions for executing a computer process performing the method recited in claim 21.

48. A computer signal embodied in a carrier wave readable by a computing system and encoding a computer program of instructions for executing a computer process performing the method recited in claim 27.